

Supplementary material

Shortfalls in extinction risk assessments for plants

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Fig. S1. Australian territories from the World Geographical Scheme for Recording Plant Distributions which underpins the Plants of the World Online database.

Table S1. Hierarchy to refine multiple entries with conflicting Interpreted Conservation Statuses per taxon in ThreatSearch

1st filter – source

Assessments with the top-most ranked source are accepted through the filter. IUCN and more local sources are considered more reliable and therefore have a higher rank

Rank	Source	Rank	Source
1	Department of the Environment - Australia (2018)	4	Liste rouge Plantes vasculaires – Suisse
1	IUCN_2016_1	4	Liste Rouge Polynésie française (2015)
1	IUCN_RedList_2018.1	4	MesoamericaRL
1	IUCN_RedList_2019.1	4	National List of Threatened Philippine Plants
1	IUCN_RedList_2019.1 (regional)	4	National Red List
1	IUCN Plants 1997	4	NationalRL_0915
1	IUCN Red List	4	NatureServe 2017. Central Biotics Custom Data
1	IUCN_2014_3	4	NorwegianRedList (2015)
2	Australian Capital Territory Government (2016)	4	Red Book of Armenia
2	Census of the Queensland flora	4	Red List of South African plants version 2014.1
2	Northern Territory Herbarium (2015)	4	Rhododendron RL
2	PlantNET	4	South Africa Trees
2	State Herbarium of South Australia (2018)	4	South African Plants SANBI
2	Threatened Species Section Tasmania (2018)	4	SvalbardRedList (2015)
2	VicFlora (2016)	4	The Red List of Vascular Plants of Taiwan 2017
2	Western Australian Herbarium (1998, Åi)	4	Threatened Plants of the Philippines
2	Stewart <i>et al.</i> 2015	4	Threatened Species List of China's Higher Plants
3	Kew_CAT	4	Vietnam Red Data Book Part II: Plants
3	Kew_CAT_1016	4	Armstrong 2013
4	China Red List	4	Colling 2005
4	Japan National Red List of vascular plants 2018	4	de Kok 2007
4	Jordan RL	4	Humphreys <i>et al.</i> 2019
4	Lista Roja de la Flora Vasculare en Republica 2016	4	Miller <i>et al.</i> 2013
4	Lista Vermelha da flora brasileira versão 2012.2	4	Onana and Cheek 2011
4	Liste Rouge Guadeloupe	4	Sakkir <i>et al.</i> 2012
4	Liste Rouge La Réunion & Mayotte (2010)	4	Schmidt <i>et al.</i> 2017
4	Liste Rouge Martinique	4	Soh <i>et al.</i> (2015)
		4	Turis <i>et al.</i> 2014
		4	NOM_2010

2nd filter – year

Assessments conducted in the most recent year are accepted through this filter. All assessments without dates are also accepted as they could be more recent

3rd filter – interpreted conservation status

The more conservative status (top-most ranked) is the final output for the taxon

Rank	Interpreted Conservation Status
1	extinct
2	threatened
3	possibly threatened
4	not threatened
5	data deficient
6	NA

Table S2. Counts of Australian plant taxa listed in the ThreatSearch database

Listed taxa are broken down by Interpreted Conservation Status after refinement as per Methods S1

ThreatSearch Interpreted Conservation Status	All Endemic Australian Plants (15 544)		Endemic Australian Plants in ThreatSearch (3805)		All Native Australian Plants (18 227)		Native Australian Plants in ThreatSearch (5137)	
extinct	42	(0.3%)	42	(1.1%)	55	(0.3%)	55	(1.1%)
threatened	1797	(11.6%)	1797	(47.2%)	2080	(11.4%)	2080	(40.5%)
possibly threatened	1218	(7.8%)	1218	(32.0%)	1404	(7.7%)	1404	(27.3%)
not threatened	692	(4.5%)	692	(18.2%)	1478	(8.1%)	1478	(28.8%)
data deficient / NA	56	(0.4%)	56	(1.5%)	120	(0.7%)	120	(2.3%)
not listed	11 739 (75.5%)				13 090 (71.8%)			

Table S3. *P*-value output from Fisher’s Exact tests used to determine if the proportions of endemic Australian plants, birds, and mammals that have an IUCN Red List assessment differ significantly

Holm–Bonferroni corrections were applied to *P*-values computed from group comparisons to adjust for multiple comparisons

Group pair	Unadjusted <i>P</i> -value	Holm–Bonferroni adjusted	95% CI	Odds ratio
Plants–birds	<2.20e-16	<6.6e-16	0.2041117–0.2722617	0.235548
Plants–mammals	<2.20e-16	<6.6e-16	0.04963361–0.07579230	0.06138957
Birds–mammals	<2.20e-16	<6.6e-16	0.2039604–0.3327969	0.2608637

Table S4. *P*-value output from Fisher’s Exact tests used to determine if the proportions of endemic Australian plants, birds, and mammals that have an *Environment Protection and Biodiversity Conservation Act 1999* assessment differ significantly

Holm–Bonferroni corrections were applied to *I*-values computed from group comparisons to adjust for multiple comparisons

Group pair	Unadjusted <i>P</i> -value	Holm–Bonferroni adjusted	95% CI	Odds ratio
Plants–birds	0.001458	0.001458	0.5675400–0.8762585	0.7023137
Plants–mammals	<2.2e-16	<6.6e-16	0.1440326–0.2278213	0.1807054
Birds–mammals	<2.20e-16	<6.6e-16	0.1896422–0.3491895	0.2575267